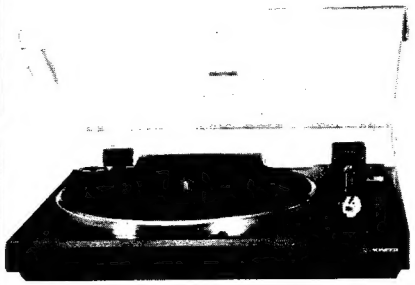
PIONEER

Service Manual

CIRCUIT & MECHANISM DESCRIPTIONS
REPAIR & ADJUSTMENTS



ORDER NO.
ARP1071-0

STEREO TURNTABLE

PL-570(BK)
PL-570

MODEL PL-570 (BK: black) and PL-570 (silver) COMES IN FIVE VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Applicable model		Power requirement	Destination
	PL-570 (BK)	PL-570		
WEM	o	o	AC220V – 240V	European continent
WB	o	o	AC220V – 240V	United Kingdom
R	o	–	AC110V –120V, 220V – 240V (switchable)	General export
KU	o	–	AC120V only	U.S.A.
KC	o	–	AC120V only	Canada

- **This service manual is applicable to the WEM, WB, R, KU and KC types.**
- **As to the WB, R, KU and KC types, please refer to pages 25, 26.**
- **Ce manuel d'instruction se refér au mode de réglage en français (21p. – 22p.).**
- **Este manual de servicio trata del método ajuste escrito en español. (23p. – 24p.).**

CONTENTS

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE AND ENGINEERING, INC P.O. Box 1760, Long Beach, California 90801 U.S.A. TEL: (213) 420-5700
PIONEER ELECTRONIC (EUROPE) N.V. Keetberglaan 1, 2740 Beveren, Belgium TEL: 03/775·28·08
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: (03) 580-9911

1. SPECIFICATIONS

PHONOGRAPH MOTOR AND PLATTER

Motor type.....DC servo motor
Drive system.....Belt drive system
Speed of rotation.....2 speeds: 33-1/3, 45 rpm
Wow and Flutter.....0.05% WRMS
±0.07% WTD Peak (DIN)
S/N ratio.....68 dB (DIN-B)
Platter.....Diameter 304 mm, aluminium die-cast

TONE ARM

Type.....Integrated straight pipe arm

SUPPLIED CARTRIDGE (PC-295T)

Type.....MM type
Replacement stylus.....PN-295T
Stylus.....0.6 mil diamond
Output voltage.....2.5 mV (1 kHz, 5 cm/s LAT Peak)
Suitable stylus pressure.....1 - 1.5 g (optimum value 1.25 g)
Frequency response.....10 Hz - 30,000 Hz
Load resistance.....50 kΩ
Weight.....6 g

FUNCTIONS PROVIDED

Auto lead-in, auto return, auto cut, arm elevation, manual play.

POWER SUPPLY, OTHER

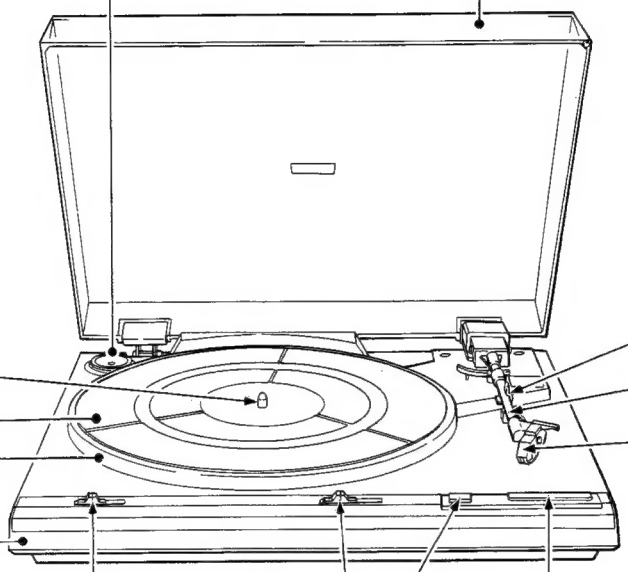
Power requirements
European, U.K., Australian models.....AC 220 V — 240 V ~ ,50/60 Hz
U.S., Canadian models.....AC 120 V, 60 Hz
Other destination models.....AC 110 V — 120 V/220 V — 240 V ~ (switchable) ,50/60 Hz
Power consumption
European, U.K., Australian models.....2 W
U.S., Canadian models.....2 W
Other destination models.....2 W
External dimensions.....
420(W) x 99(H) x 374(D) mm
16 - 1/2(W) x 3-1/8(H) x 14-3/4(D) in
Net weight.....3.9 kg (8 lb 10 oz)

SUPPLIED ACCESSORIES

EP adaptor.....1
Operating instructions.....1

NOTE:
Specifications and design subject to possible modification without notice, due to improvements.

2. PANEL FACILITIES



EP Adaptor
When playing a record with a doughnut hole, place this over the platter spindle.

Dust Cover

Platter Spindle

Platter Mat

Platter

Cabinet

Arm rest

Tone Arm

Cartridge (PC-295T)

SPEED Selector Switch
Set this switch to the rotation speed of the record which you intend to play.
On [45] — For 45 rpm records
On [33] — For 33-1/3 rpm records

START/STOP switch
Press to start auto play mode, and to stop play.

SIZE Selector Switch
Set this switch to the size of record which you intend to play.
On [30] — For 30 cm LPs
On [17] — For 17 cm EPs

ARM ELEVATION Switch
- Use to perform manual play.
- Use to temporarily stop playing.
- Use to change tracks in the middle of play. When changed, the tone arm moves up or down.
  On [UP] position — To elevate the tone arm. (The stylus is lifted off the record.)
  On [DOWN] position — To lower the tone arm. (The stylus is lowered onto the record.)

3. DISASSEMBLY

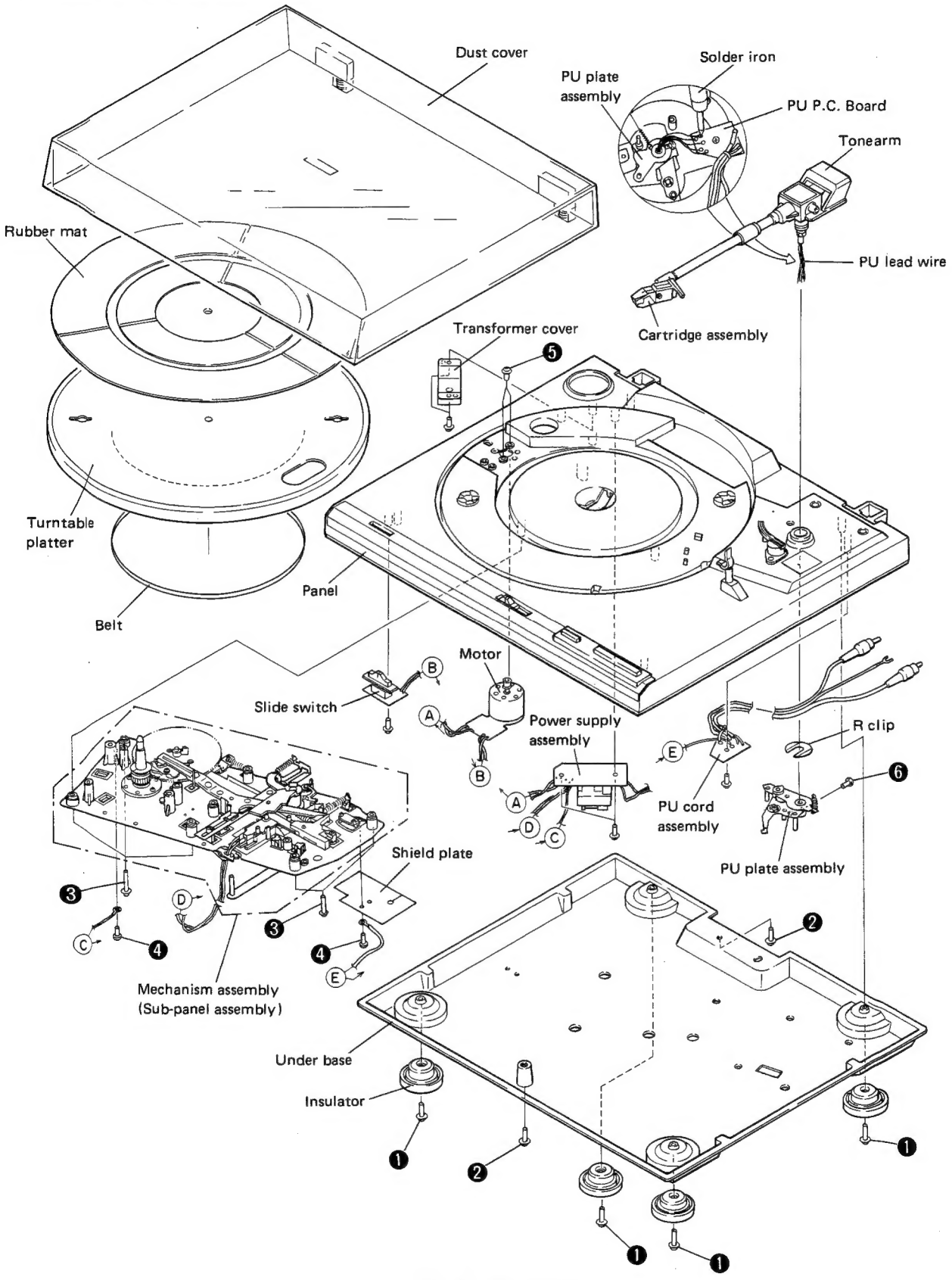


Fig. 3-1 Disassembly

- **Mechanism Assembly (Sub-panel Assembly) and Motor**

1. Rotate the turntable platter to disengage the mechanism.
2. Fix the tonearm to the arm rest. (Be sure to cover the stylus with the stylus cover.)
3. Remove the rubber mat and the belt, then the turntable platter.
4. Close the dust cover, turn the turntable upside down, and place it on a soft surface, e.g., a work bench covered with soft cloth (for product protection).
5. Remove the four screws labeled ❶, and remove the insulator. Then remove the two screws labeled ❷, and remove the under base.
6. Remove the five screws labeled ❸ and Two screws labeled ❹, and remove the lead connected to the microswitch. This operation will release the mechanism assembly.
7. Remove the two screws labeled ❺ to remove the motor.

- **Tonearm**

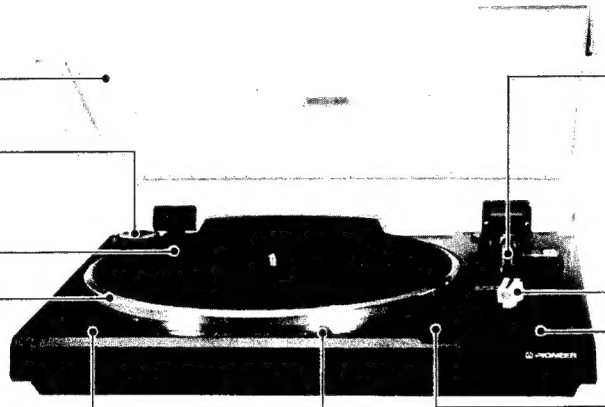
1. Remove the mechanism assembly from the panel.
2. Unsolder and disconnect the PU leads (arm leads) from the PU printed circuit board (PU P.C. Board).
3. Remove the AS spring from the PU plate assembly.
4. Remove the screw labeled ❻, and remove the PU plate assembly from the tonearm.
5. Remove the R clip.
6. Place the turntable on one of its sides, remove the arm clamp, and gently pull out the tonearm from the panel.

4. PARTS LOCATION

NOTES:

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Front View



★★ Dust cover PNV-060

45 adaptor N93-603

Turntable sheet assembly PEA-073

Turntable platter PNR-232

SP button PAC-228

★ Tonearm assembly PPD-682

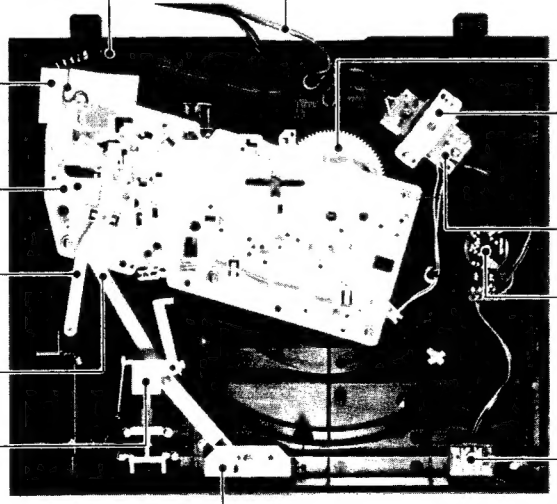
Cartridge assembly

S/S button PAC-348

Size button PAC-347

EV button PAC-229

Inside View with Bottom Plate Removed



PU cord assembly PXB-333

Shield plate

⚠ Sub-panel assembly

Start lever unit PXV-036

EV lever PNC-360

Size lever PNY-336

EV angle PNC-361

⚠ AC power cord PDG-037

Cam assembly PYY-164

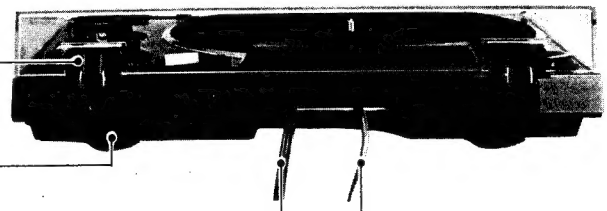
Transformer cover

⚠ Power supply assembly PWR-095

★★ Motor assembly PYY-163

P.C. board

Rear View



5. ELECTRICAL PARTS LIST

NOTES:

- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
  Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	*56 × 10¹*	*561*	*RD1/4PS 5 6 1 J*
47kΩ	*47 × 10³*	*473*	*RD1/4PS 4 7 3 J*
0.5Ω	*0R5*		*RN2H 0 R 5 K*
1Ω	*010*		*RS1P 0 1 0 K*

  Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	*562 × 10¹*	*5621*	*RN1/4SR 5 6 2 1 F*

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Miscellaneous Parts

Mark	Symbol & Description	Part No.
⚠	Power supply assembly	PWR-095
	PU cord assembly	PXB-333
★★	Motor assembly	PYY-163
★★	Motor	PXM-133
★★	Microswitch (POWER)	PSF-023
★★	Push switch	PSG-047
⚠	AC power cord	PDG-037
⚠	Switch P.C. board	

Power Supply Assembly (PWR-095)

SEMICONDUCTOR

Mark	Symbol & Description	Part No.
★	D1	DSA1A1

TRANSFORMER

Mark	Symbol & Description	Part No.
⚠ ★	Power transformer (AC230V)	PTT-256

CAPACITORS

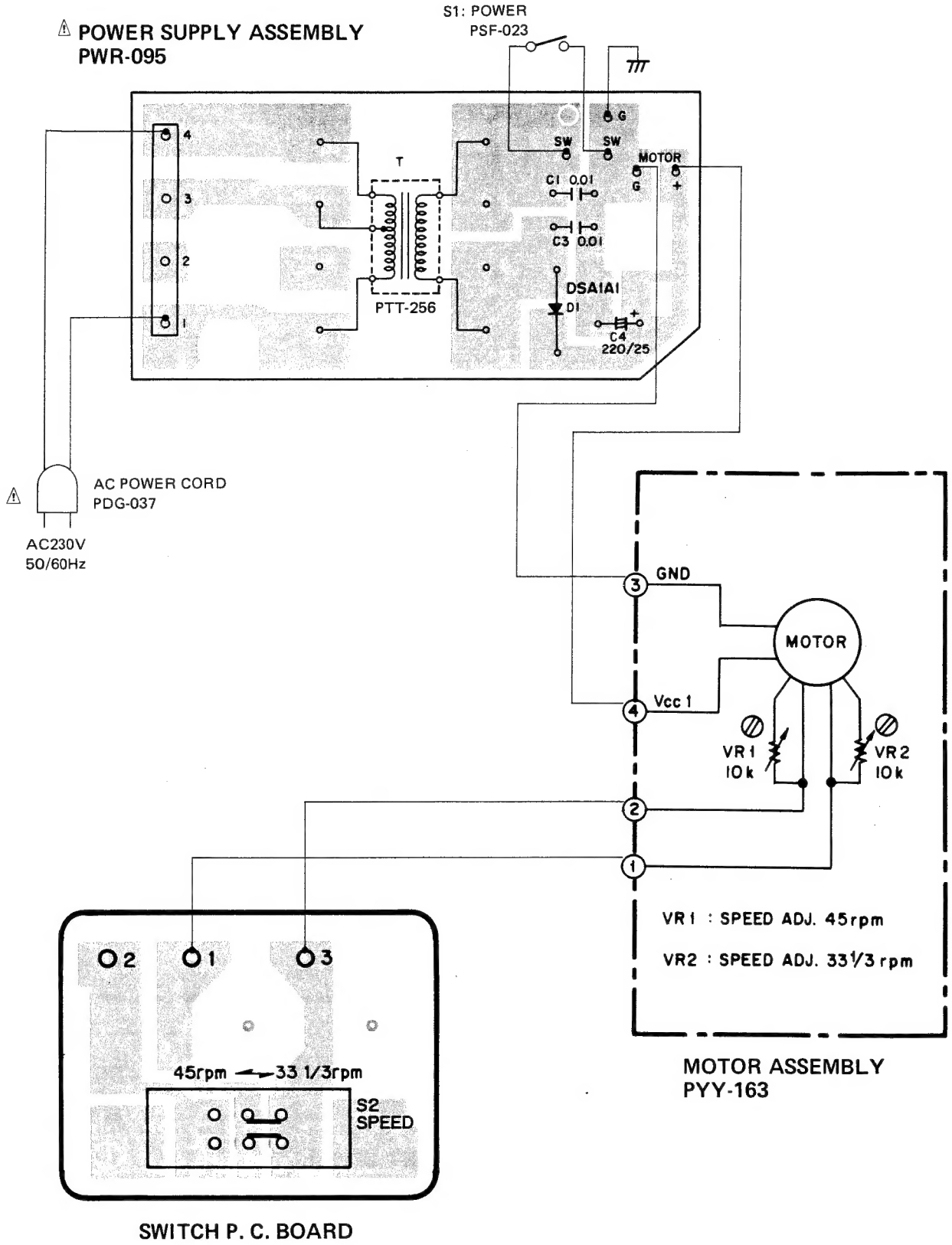
Mark	Symbol & Description	Part No.
	C4	CEA221M25L
⚠	C1, C3	CKDYF103Z50

Switch P.C. Board

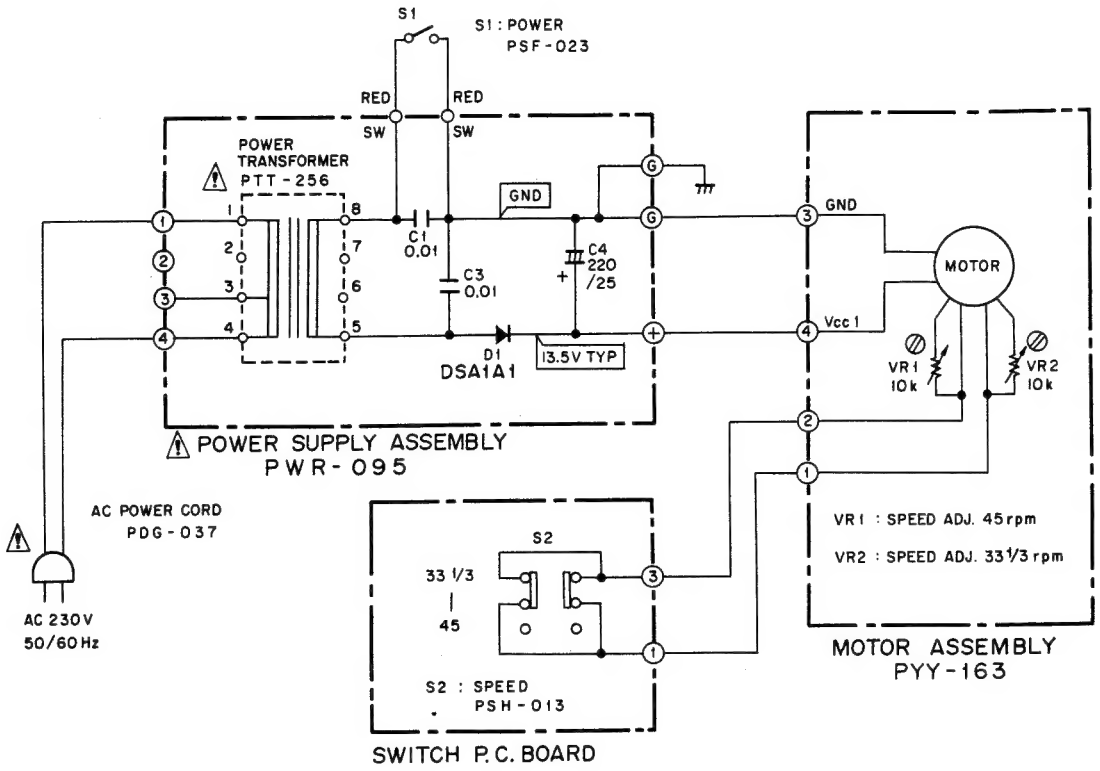
SWITCH

Mark	Symbol & Description	Part No.
★★	S2 Slide switch (SPEED)	PSH-013

6. P.C. BOARDS CONNECTION DIAGRAM



7. SCHEMATIC DIAGRAM



1. RESISTORS:
Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE :
▭ : DC voltage (V) at no input signal

4. OTHERS:
➡ : Signal route.
⊘ : Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

SWITCHES:

S1 :	POWER	ON — <u>OFF</u>
S2 :	SPEED	<u>33 1/3 rpm</u> — 45 rpm

The underlined indicates the switch position.

8. EXPLODED VIEWS

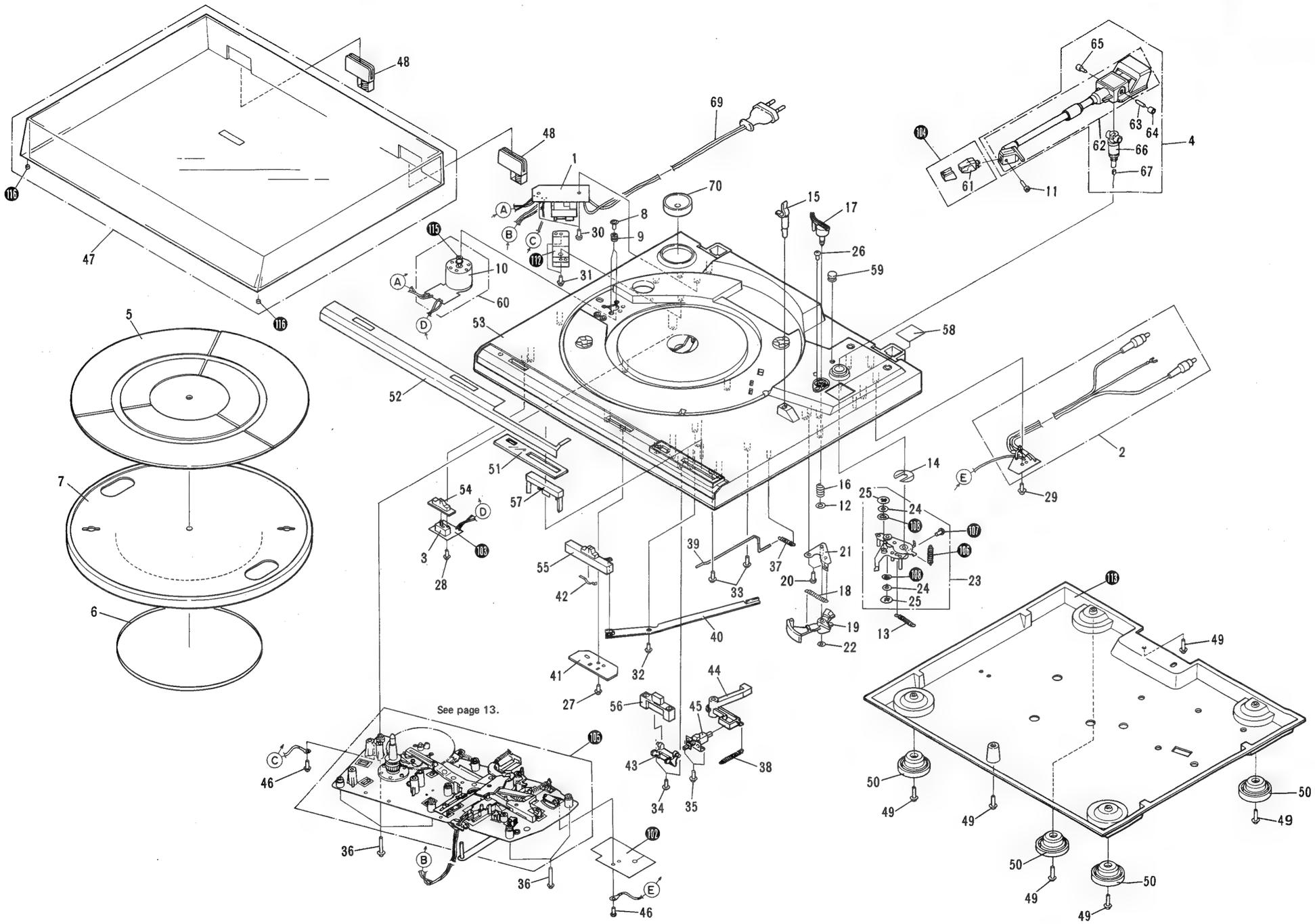
8.1 EXTERIOR

NOTES:

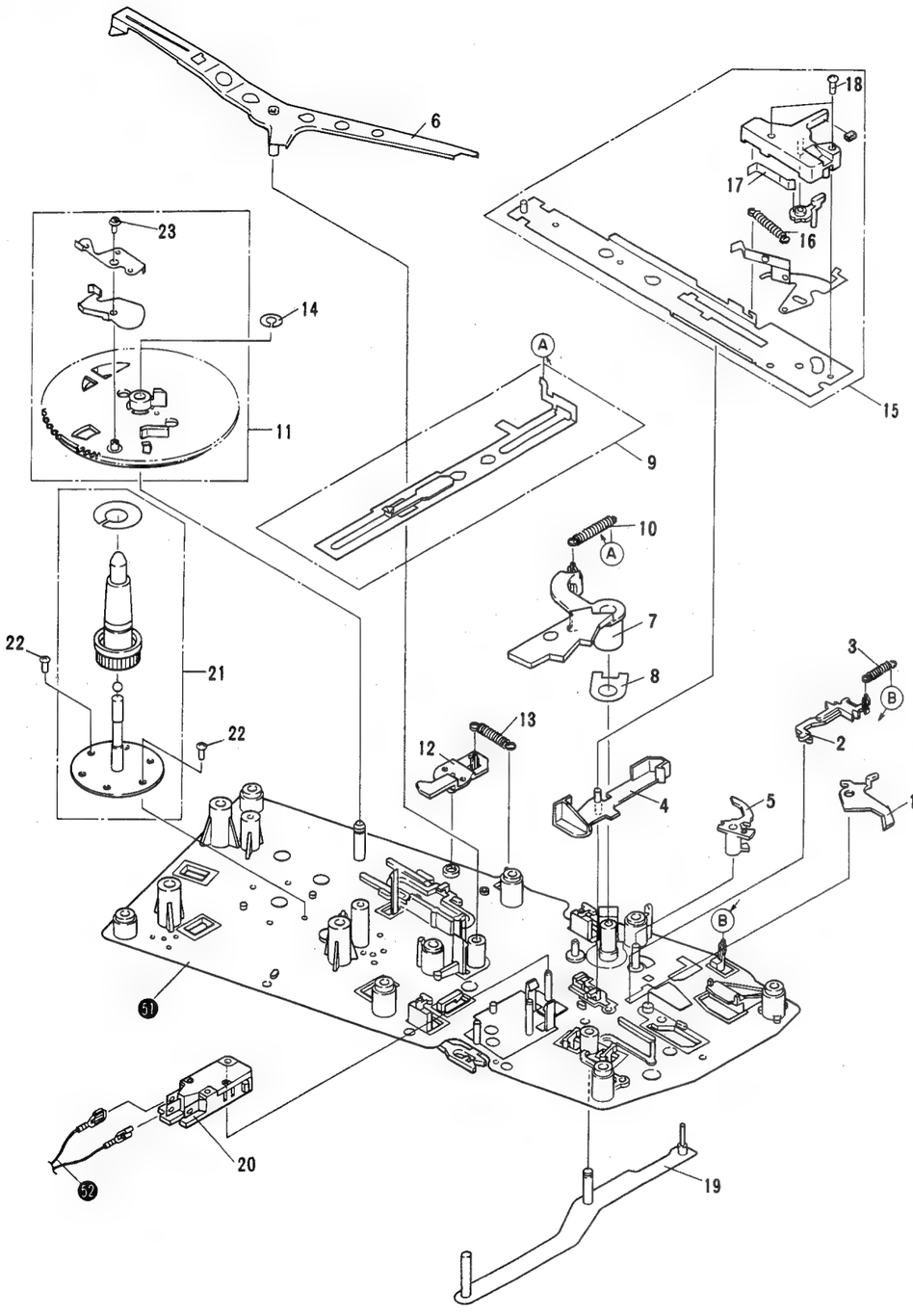
- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts List

Mark	No.	Part No.	Description
⚠	1.	PWR-095	Power supply assebmly
	2.	PXB-333	PU cord assembly
★★	3.	PSH-013	Slide Switch (SPEED)
★	4.	PPD-682	Tonearm assembly
	5.	PEA-073	Turntable sheet assembly
★★	6.	PEB-296	Belt
	7.	PNR-232	Turntable platter
	8.	PBA-112	Motor mounting screw
	9.	PEB-172	Rubber cushion
★★	10.	PXM-133	Motor
	11.	PBA-170	Cartridge mounting screw
	12.	PBF-020	Polyslider washer
	13.	PBH-425	AS spring
	14.	PBK-059	R clip
★	15.	PNY-345	Arm rest
	16.	PBH-293	EV spring
	17.	PXB-374	EV sheet assembly
	18.	PBH-238	EV cam spring
	19.	PNY-335	EV cam
	20.	PPZ30P080FMC	Screw
	21.	PXT-462	EV plate spring (B) unit
	22.	WT31D054D050	Washer
	23.	PXB-323	PU plate assembly
	24.	WC40FMC	Washer
	25.	YS40FBT	Washer
	26.	BPZ26P120FZK	Screw
	27.	IPC30P100FMC	Screw
	28.	IPC30P100FMC	Screw
	29.	IPC30P100FMC	Screw
	30.	IPC30P100FMC	Screw
	31.	IPC30P100FMC	Screw
	32.	IPC30P100FMC	Screw
	33.	IPC30P100FMC	Screw
	34.	IPC30P100FMC	Screw
	35.	IPC30P100FMC	Screw
	36.	IPC30P290FMC	Screw
	37.	PBH-339	Power lever spring
	38.	PBH-368	S/S rod spring
	39.	PBH-419	S/S rod
	40.	PNC-360	EV lever
	41.	PNC-361	EV angle
	42.	PNC-362	Button spring
	43.	PNX-292	Switch lever (B)
	44.	PNY-336	Size lever
★★	45.	PSG-047	Push switch (dummy)
	46.	PSZ30P060FMC	Screw
★★	47.	PNV-060	Dust cover
★	48.	PXB-378	Hinge assembly
	49.	IPC30P160FMC	Screw
	50.	PEB-251	Insulator
	51.	PAM-209	BF screen
	52.	PAN-130	Name plate
	53.	PNY-582	Panel (BLACK)
		PNY-589	Panel (SILVER)
	54.	PAC-228	SP button
	55.	PAC-229	EV button
	56.	PAC-347	Size button
	57.	PAC-348	S/S button
	58.	PAN-066	AS plate
	59.	PEB-114	Rubber bush (KU type only)
★★	60.	PYY-163	Motor assembly
	61.	PXV-973	Cartridge (Without stylus)
	62.	PXB-623	Pipe holder assembly
	63.	PLA-580	Pivot
	64.	PLB-718	Pivot lock nut
	65.	PLB-727	Pivot screw
	66.	PXB-624	Inside holder assembly
	67.	PDF-514	Ground lug unit
	68.		. . . . .
⚠	69.	PDG-037	AC power cord
	70.	N93-603	45 adaptor
	101.		. . . . .
	102.		Shield plate
⚠	103.		Switch P.C. board
	104.		Cartridge assembly
⚠	105.		Sub-panel assembly
	106.		PU plate spring
	107.		Screw
	108.		PU spring washer
	109.		
	110.		
	111.		
	112.		Transformer cover
	113.		Under base
	114.		
★★	115.		Motor pulley
	116.		Rubber foot


See page 13.

8.2 SUB-PANEL ASSEMBLY



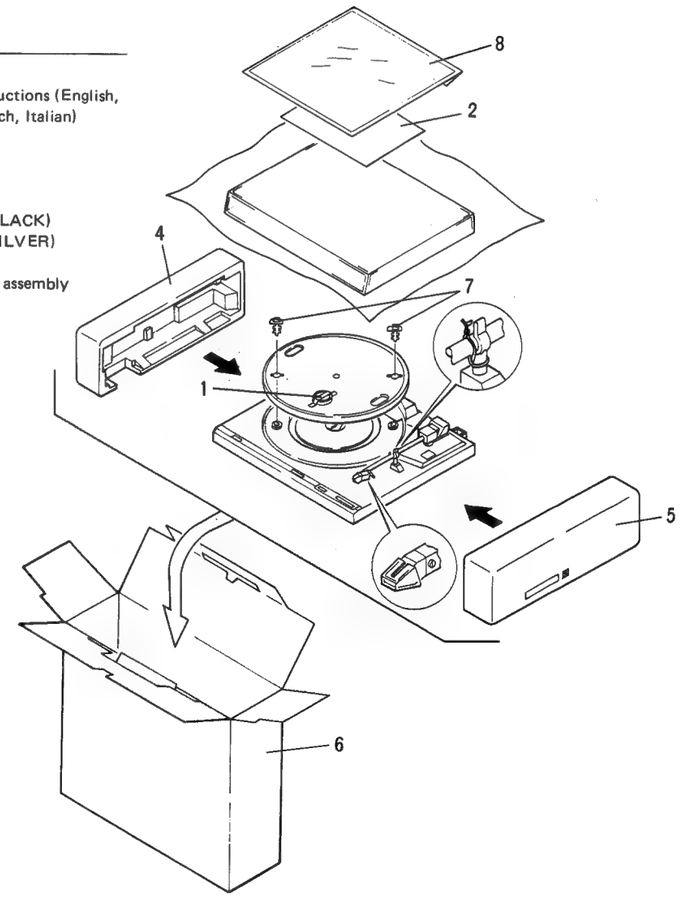
Parts List of Sub-Panel Assembly

Mark	No.	Part No.	Description
	1.	PNX-028	Reset plate
	2.	PNY-140	Selector
	3.	PBH-394	Reset plate spring
★★	4.	PNX-030	Switch lever
★★	5.	PNY-141	Switch locker
★★	6.	PXT-446	Detector lever unit
	7.	PNY-138	Index cam
	8.	PBK-039	Spring washer
★★	9.	PXV-060	Select lever unit
	10.	PBH-393	Select lever spring
	11.	PYY-164	Cam assembly
	12.	PNY-139	Lock plate
	13.	PBH-392	Lock plate spring
	14.	PBH-018	Polyslider washer
	15.	PXB-376	Drive board assembly
	16.	PBH-224	Start plate spring
	17.	PBK-038	Click board spring
	18.	PMZ26P100FMC	Screw (2.6 x 8)
★★	19.	PXV-036	Start lever unit
★★	20.	PSF-023	Microswitch (POWER)
	21.	PXB-443	Shaft assembly
	22.	PDZ30P080FMC	Screw (3 x 8)
	23.	PBA-126	Screw (2.6 x 8)
	51.		Sub-Panel unit
	52.		Lead wire assembly

9. PACKING

Parts List of Packing

Mark	No.	Part No.	Description
	1.	N93-603	45 adaptor
	2.	PRE-054	Operating instructions (English, Germany, French, Italian)
	3.		.....
	4.	PHA-175	Protector (L)
	5.	PHA-176	Protector (R)
	6.	PHH-339	Packing case (BLACK)
		PHH-369	Packing case (SILVER)
	7.	PNY-479	Clamper
	8.	PEA-073	Turntable sheet assembly



10. PRECAUTIONS FOR REASSEMBLY

Follow these directions and precautions when reassembling a unit after completing repairs. Be sure to lubricate as required, make no mistakes when attaching parts, and avoid all other careless mistakes that may be the cause of trouble later on.

10.1 AREAS THAT REQUIRE LUBRICATION

NOTE:
Types of lubricants and areas where they are used are listed in table 1.

Table 1

Type of Oil	Areas used
Silicon Oil #50000	raising shaft
GYA-008	all other areas

Lubrication points are specified for oils other than GYA-008. Never use a different type of oil.

- **Cam Section**

Apply grease to the heart-shaped grooved section (rear side of the cam) and lock plate sliding section in order to minimize wear on the sliding section and the burden on the mechanism.

- **Driving Plate Assembly**

Decrease the burden on the mechanism and the wear on the sliding section.

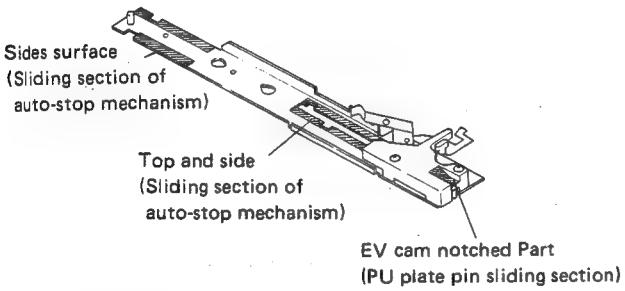


Fig. 10-1 Driving panel assembly section Switch Locker Section

- **Switch Locker Section**

Apply grease to the switch locker (opening) and sub-panel base sliding section to decrease the burden on the mechanism.

When applying grease to the opening (shaft hole), do not apply any grease 2 ~ 3mm from the bottom surface. If grease is applied 2~3mm within the bottom surface, it may come out the bottom and go between the switch lever and sub-panel base causing the switch lever to operate ineffectively.

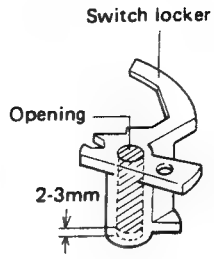


Fig. 10-2 Switch locker section

- **Selector Section**

Apply grease to the surface of the sub-panel base of the selector sliding section to decrease the burden on the mechanism and wear on the sliding section.

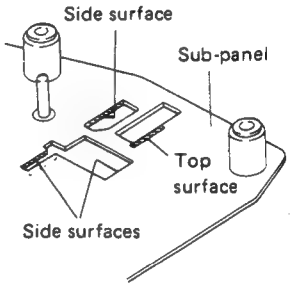


Fig 10-3 Selector section

- **Reset Plate Section**

Apply grease to the sub-panel base (shaft) and sliding section of the reset plate to decrease the burden on the mechanism.

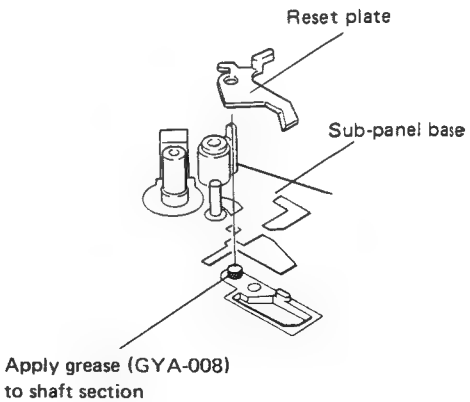


Fig. 10-4 Reset plate section

- **Index Cam Section**

Apply grease to the index cam and lower surface of the hooked section to decrease the burden on the mechanism.

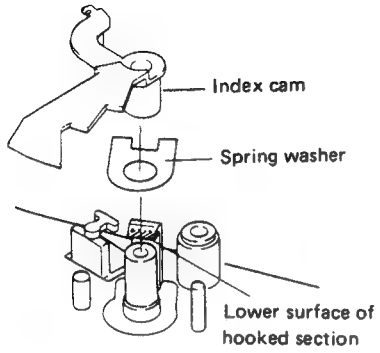


Fig. 10-5 Index cam section

- **EV Sheet Section**

Apply oil to the raising shaft and sliding section of the bearing to assure stability in the elevation lowering speed.

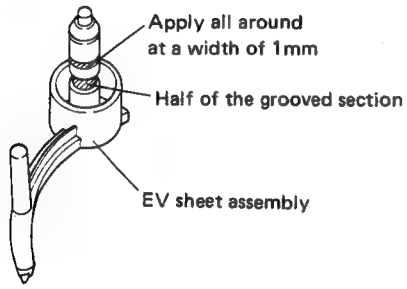


Fig. 10-6 EV sheet section

- **EV Lever Section**

Coat the EV lever shaft section with grease so the EV lever operates smoothly.

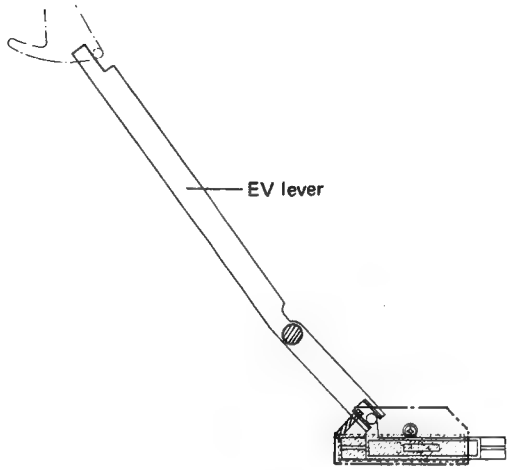


Fig. 10-7 EV lever section

- **Cam section**

Coat the convex side of the cam with grease to prevent cam and timing lever contact section wear.

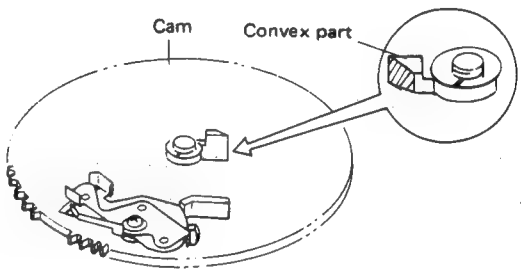


Fig. 10-8 Cam section

- **Elevation Cam Section**

Apply grease to the elevation cam and sliding section of the raising shaft to decrease the burden when operated.

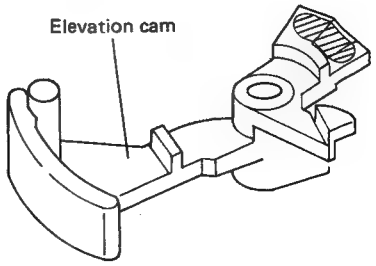


Fig. 10-9 Elevation cam section

10. 2 PRECAUTIONS FOR ATTACHMENT OF PARTS AND REASSEMBLY

- **Reset Plate SP Attachment**

As shown in Fig. 10-10, the reset plate SP hook is attached by putting the open section on the sub-panel base side.

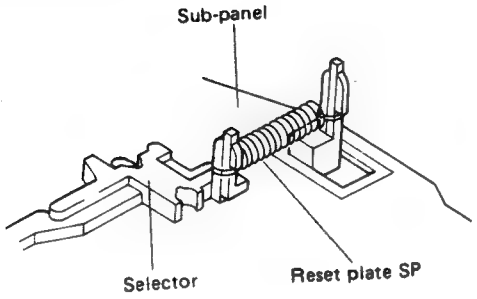


Fig. 10-10 Reset plate SP attachment

- **Cam Assembly Attachment**

The cam assembly is attached by letting the lock plate go in the direction Ⓐ as shown in Fig. 10-11.

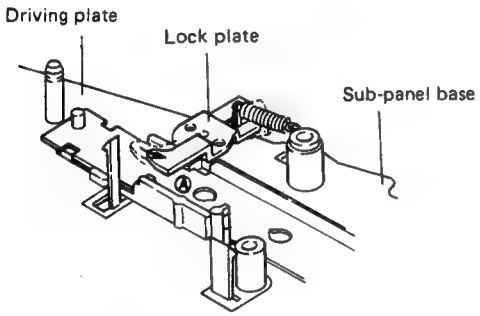


Fig. 10-11 Cam assembly attachment

- **Motor Attachment**

When installing the motor, set the cam in the mechanism stop location and verify that the starting plate section Ⓑ does not protrude beyond surface Ⓐ of the cam. If the motor is attached with the starting plate section Ⓑ protruding, the starting plate may be deformed, the motor pinion gear may be scratched, and the return function may be damaged.

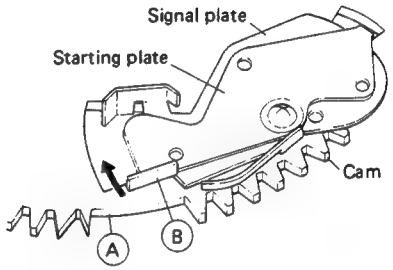


Fig. 10-12 Motor attachment

- **Start Lever Unit Attachment**

Attach the shaft section of the start lever unit as shown in Fig. 10-13 so that it comes between the reset plate and start plate.

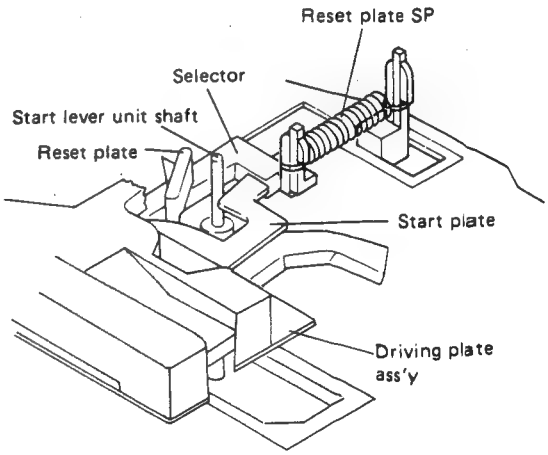


Fig. 10-13 Start lever unit attachment

• Mechanism Ass'y Attachment

1. PU plate shaft position confirmation

When attaching the arm base section to the mechanism section, put the mechanism section switch locker and switch lever in the locked position and verify that the tonearm is in the arm rest location. Also check that the PU plate shaft is in the position shown in Fig. 10-14.

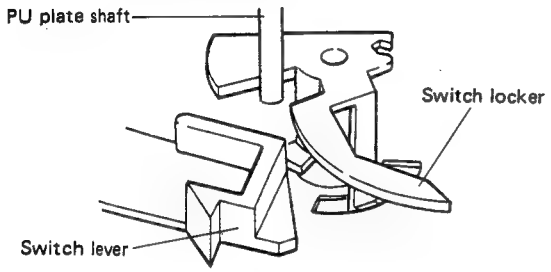


Fig. 10-14 Arm base attachment

2. PU lead wire position confirmation

When attaching the mechanism ass'y to the panel, be careful that the PU lead wire is not pinched at the panel boss as shown in Fig. 10-15.

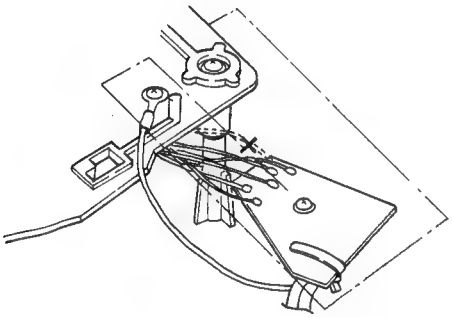


Fig. 10-15 PU lead wire attachment

• PU Plate Attachment

Push the PU plate into place so that the PU plate bearing section touches the revolution shaft attachment nut. Installation direction is as shown in Fig. 10-16.

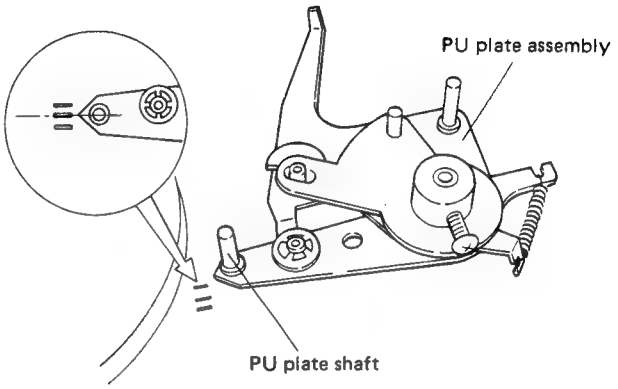


Fig. 10-16 PU plate attachment

• Installing The Cords

When installing the PU lead wire and AC power cord, install them to the panel with string as shown in Fig. 10-17.

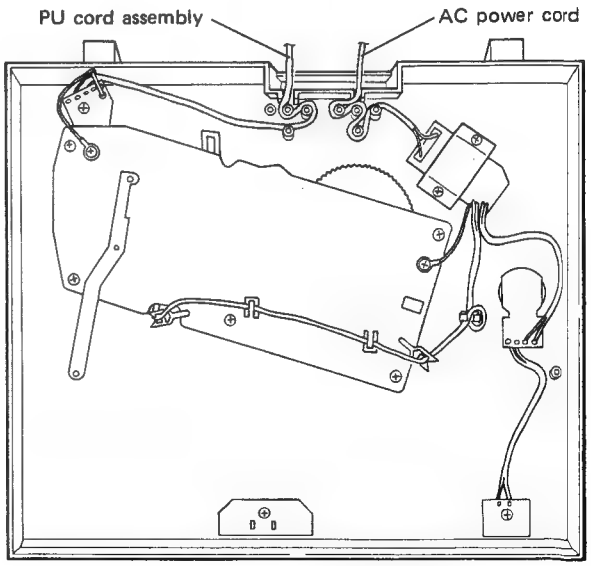


Fig. 10-17 Cords stringing

11. ADJUSTMENTS

11.1 MOTOR ADJUSTMENTS

Place the record player on blocks as shown in Fig. 11-1 and adjust the motor from the under base.

1. Turn the arm elevation lever up to raise the arm.
2. Place a strobo sheet on the turntable, move the arm to the turntable side, and rotate the turntable.
3. Adjust semifixed resistors VR1 and VR2 of the motor assembly so the strobo of the strobo sheet appears to the static.
4. First adjust VR2 for 33 1/3 rpm and then adjust VR1 for 45 rpm.

11.2 STYLUS LANDING POSITION ADJUSTMENT

When the tone arm doesn't land in the correct position during automatic playback, adjust according to the following procedure.

1. Place a 30 cm record on the platter.
2. Press the START/STOP switch and start automatic playback. Note the direction and amount if the landing point is off. (How many mm to the inside or outside from the record grooves.)
3. Depress the START/STOP switch to return the tone arm to its rest.
4. Press the arm elevation switch to raise the stylus.
5. Move the tone arm to the outside edge of the record by hand.
6. Turn the adjustment screw with a small screwdriver according to the direction and amount checked at item 2 as follows:
   - When the stylus lands at the outside of the record, turn the adjustment screw in the ↷ direction.
   - When the stylus lands at the inside of the record, turn the adjustment screw in the ↶ direction.

   One half turn of the adjustment screws moves the tone arm about 12mm.
7. After adjustment, press the PLAY/STOP switch and check if the stylus landing point was correctly adjusted.
   If adjustment is incorrect, repeat items 3 to 6.

Be careful not to damage the record and stylus when making this adjustment.

Adjustment using a test record

(Lowering position adjustment is made with the tone arm on the outside edge of the record.)

30 cm landing point . . . Lands between count 306 and 313.

17 cm landing point . . . Lands between count 175 and 183.

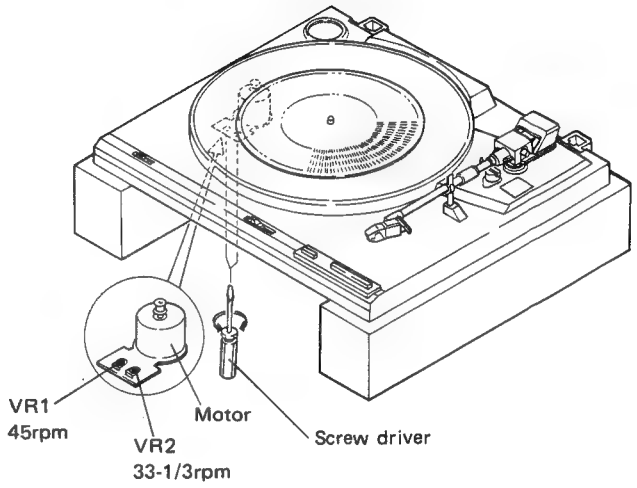


Fig. 11-1 Motor adjustment

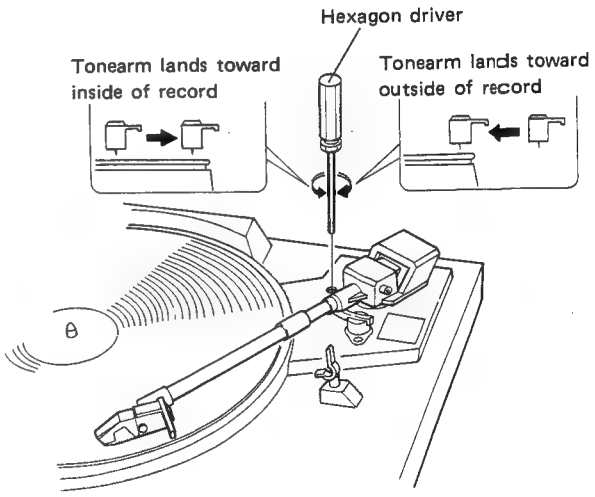


Fig. 11-2 Stylus landing point adjustment

11.3 AUTO-RETURN POSITION ADJUSTMENT

- **Auto-Return Position Adjustment**

When auto-return occurs too early or too late, make the following adjustments.

1. Check the stylus landing position. If the stylus does not land at the correct position, adjust the landing position.
2. Set the arm elevation switch to UP and turn the auto-return adjustment screw fully counter-clockwise.
3. Move the tonearm as far as it will go toward the inside.
4. When the auto-return adjustment screws is turned slowly clockwise, the tonearm will begin to move toward the inside.
5. Stop turning the adjustment screw at the point at which there is a space of 32 mm between the cartridge stylus and the center shaft. (Fig. 11-3)
6. After adjustment, check that auto-return is performed correctly and that the stylus landing position is correct.

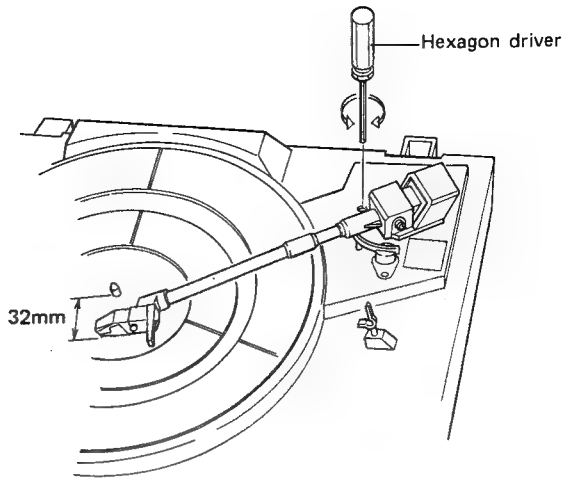


Fig. 11-3 Auto-return position adjustment

11.4 ARM ELEVATION HEIGHT ADJUSTMENT

1. Press the arm elevation switch to move the arm up.
2. Adjust the screw on the side of the arm elevation unit with a philips driver, so that the distance between the record and the stylus is 8 ±2 mm. The arm moves up when the screw is turned counter clockwise.

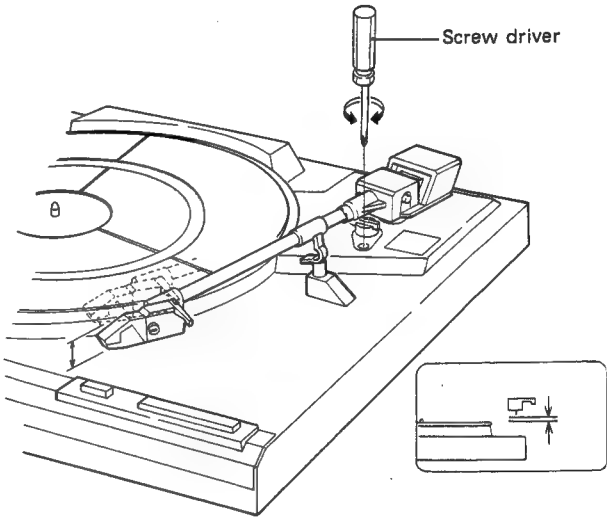


Fig. 11-4 Arm elevation height adjustment

11. RÉGLAGE

11.1 RÉGLAGE DU MOTEUR

Placer le tourne-disques sur des blocs, comme il est montré dans la Fig. 11-1 et régler le moteur depuis le dessous.

1. Tourner le levier de relevage du bras pour soulever le bras de lecture.
2. Placer une feuille stroboscopiques sur le tourne-disques; déplacer le bras jusqu'au côté du tourne-disques et le faire tourner.
3. Régler les résistances demi-fixes VR1 et VR2 de l'ensemble du moteur, jusqu'à ce que la feuille stoboscopique apparaît immobile.
4. D'abord régler VR2 pour avoir la vitesse de 33 1/3 tr/min, ensuite, régler VR1 pour 45 tr/min.

11.2 RÉGLAGE DE LA POSITION DE DESCENTE DE LA POINTE DE LECTURE

Lorsque le bras de lecture ne descend pas sur la position correcte lors de la lecture automatique, réaliser le réglage en suivant la procédure suivante.

1. Placer un disque de 30cm sur le plateau.
2. Appuyer sur la touche de marche/arrêt (START/STOP) et faire débuter la lecture automatique. Noter la direction et la grandeur de l'écart du point de descente. (Nombre de mm vers l'intérieur ou vers l'extérieur du sillon.)
3. Appuyer sur la touche START/STOP pour faire retourner le bras de lecture sur son support.
4. Appuyer sur la touche de relevage du bras pour soulever la pointe de lecture.
5. Déplacer à la main le bras de lecture vers la périphérie du disque.
6. Tourner la vis de réglage à l'aide d'un petit tournevis, en fonction de la direction et de la quantité mesurées lors du point 2, comme suit:
   - Lorsque la pointe de lecture descend vers l'extérieur du disque, tourner la vis de réglage dans le sens
   - Lorsque la pointe de lecture descend vers l'intérieur du disque, tourner la vis de réglage dans le sens

   Un demi-tour de la vis de réglage correspond à un déplacement d'environ 12mm du bras de lecture.
7. Après le réglage, appuyer sur la touche START/STOP et vérifier si le réglage de la position de descente a été correctement effectué.
   Si le réglage n'est pas correct, répéter les étapes 3 à 6.

Prendre soin de ne pas endommager le disque ni la pointe de lecture en réalisant ce réglage.

Réglage au moyen d'un disque d'essai

(Le réglage de la position d'abaissement est réalisé avec le bras de lecture placé sur la périphérie du disque.

Point de descente
pour 30cm ..... Descente entre les valeurs 306 et 313.

Point de descente
pour 17cm ..... Descente entre les valeurs 175 et 183.

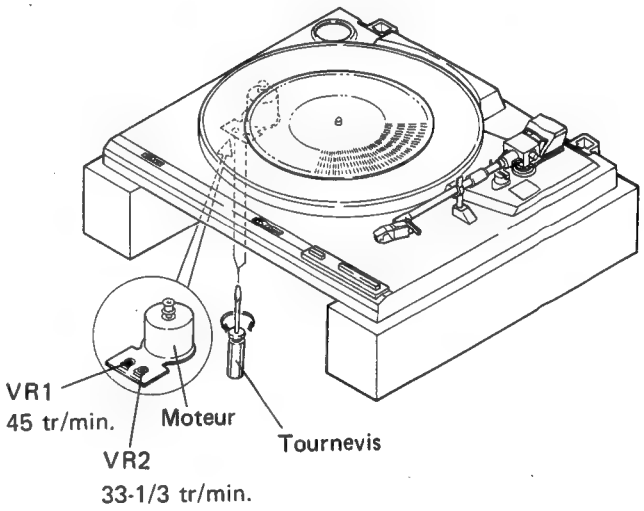


Fig. 11-1 Réglage du moteur

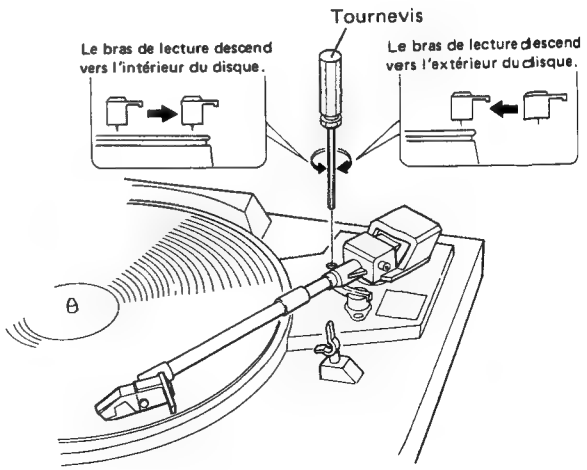


Fig. 11-4 Réglage du point de descente de la pointe de lecture

11.3 RÉGLAGE DE RETOUR AUTOMATIQUE

- **Réglage de la position de retour automatique**

Réaliser les réglages suivants lorsque le retour automatique se produit tôt ou trop tard.

1. Contrôler la position de descente de la pointe de lecture. Si la pointe de lecture ne descend pas sur la position correcte, ajuster la position de descente.
2. Régler la touche de relevage du bras sur la position "UP" et tourner la vis de réglage du retour automatique à fond dans le sens contraire des aiguilles d'une montre.
3. Déplacer le bras de lecture le plus possible vers l'intérieur.
4. Lorsque la vis de réglage du retour automatique est tournée lentement dans le sens des aiguilles d'une montre, le bras de lecture commence à se déplacer vers l'intérieur.
5. Arrêter de tourner la vis de réglage sur le point pour lequel il y a un écart de 32mm entre la pointe de lecture et l'axe central. (Fig. 11-3)
6. Après le réglage, vérifier que le retour automatique se réalise correctement et que la position de descente de la pointe est correcte.

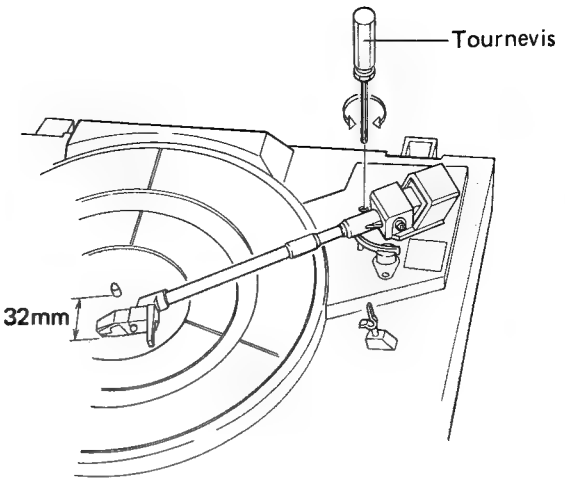


Fig. 11-3 Réglage de retour automatique

11.4 RÉGLAGE DE L'ÉLÉVATION DU BRAS DE PICK-UP

1. Presser le commutateur d'élévation du bras de pick-up pour déplacer le bras vers le haut.
2. Régler la vis du côté du bloc d'élévation du bras au moyen d'un tournevis pour vis à tête (+), de telle sorte que la distance entre le disque et la pointe de lecture soit de 8 ± 2 mm. Le bras se déplace vers le haut lorsque l'on tourne la vis dans le sens contraire des aiguilles d'une montre.

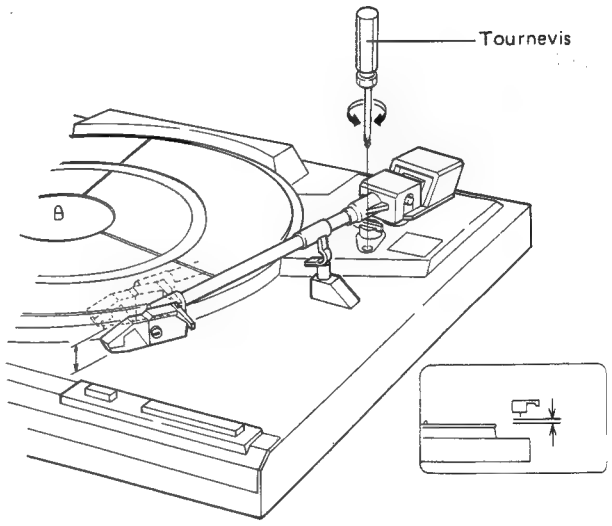


Fig. 11-4 Réglage de l'élévation du bras de pick-up

11. AJUSTE

11.1 AJUSTES DEL MOTOR

Poner el giradiscos sobre bloques como se muestra en la Fig. 11-1 y ajustar el motor desde abajo.

1. Girar la palanca de elevación del brazo para elevar el brazo fonocaptor.
2. Poner una lámina estroboscópica sobre el plato, mover el brazo hacia el plato y hacer girar el plato.
3. Ajustar los resistores semifijos VR1 y VR2 del conjunto del motor de mode que el estrobo y la lámina estroboscópica parezcan parados.
4. Primero ajustar VR2 a 33 1/3 rpm luego VR1 a 45 rpm.

11.2 AJUSTE DE LA POSICIÓN DE DESCENSO DE LA AGUJA

Cuando el brazo fonocaptor no desciende en la posición correcta durante la reproducción automática, ajustar de acuerdo con el procedimiento siguiente.

1. Poner un disco de 30cm sobre el plato.
2. Presionar el interruptor de inicio/parada (START/STOP) e iniciar la reproducción automática. Notar la dirección y cantidad si el punto de descenso es incorrecto. (Cuántos mm hacia el interior o exterior de los surcos del disco.)
3. Presionar el interruptor de inicio/parada (START/STOP) para hacer volver el brazo fonocaptor a su posición de apoyo.
4. Presionar el interruptor de elecación del brazo para hacer ascender la aguja.
5. Desplazar el brazo fonocaptor hacia el borde exterior del disco con la mano.
6. Girar el tornillo de ajuste con un destornillador pequeño de acuerdo con la dirección y cantidad comprobadas en el item 2 del modo siguiente:
   - Cuando la aguja desciende fuera del disco, girar el tornillo de ajuste en la dirección .
   - Cuando la aguja desciende en el interior del disco, girar el tornillo de ajuste en la dirección

     Media vuelta de los tornillos de ajuste desplaza el brazo fonocaptor unos 10mm.
7. Después del ajuste, presionar el interruptor de reproducción/parada (PLAY/STOP) y comprobar si el punto de descenso de la aguja se ha ajustado correctamente.

   Si el ajuste es incorrecto, repetir los items 3 al 6.

Tener cuidado de no dañar el disco ni la aguja al efectuar este ajuste.

Ajuste empleando un disco de prueba

(El ajuste de la posición de descenso se efectúa con el brazo fonocaptor sobre su borde exterior del disco.)

Punto de descenso para 30cm	Desciende entre el cómputo 306 y 313.
Punto de descenso para 17cm	Desciende entre el cómputo 175 y 183.

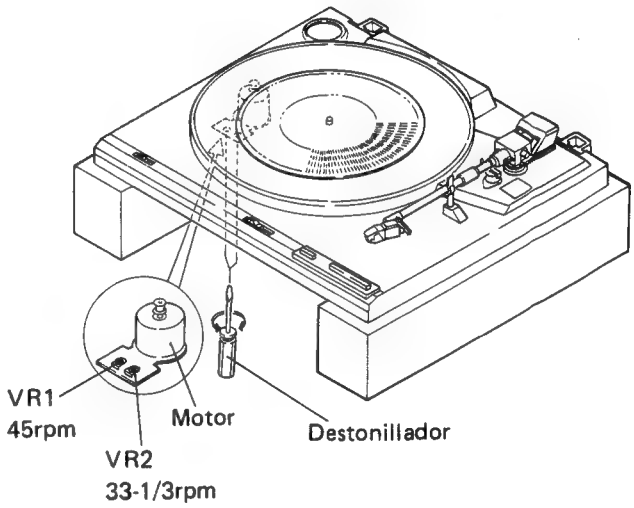


Fig. 11-1 Ajuste del motor

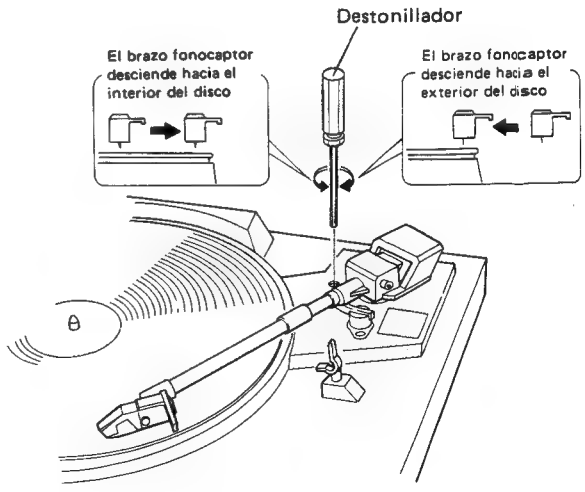


Fig. 11-2 Ajuste del punto de descenso de la aguja

11.3 AJUSTE DE RETORNO AUTOMÁTICO

- **Ajuste de la posición de retorno automático**

Cuando el retorno automático se produce demasiado rápido o demasiado tarde, efectuar los ajustes siguientes.

1. Comprobar la posición de descenso de la aguja. Si la aguja no desciende en la posición correcta, ajustar la posición de descenso.
2. Ajustar el interruptor de elevación del brazo en la posición UP y girar el tornillo de ajuste de retorno automático completamente hacia la izquierda.
3. Desplazar el brazo fonocaptor hacia el interior al máximo.
4. Cuando se giran lentamente los tornillos de ajuste de retorno automático hacia la derecha, el brazo fonocaptor emplezará a moverse hacia el interior.
5. Dejar de girar el tornillo de ajuste en el punto en el que haya un espacio de 32mm entre la aguja de la cápsula y el eje central. (Fig. 11-3)
6. Después del ajuste, compronar que la operación de retorno automático se efectúe correctamente y que la posición de descenso de la aguja sea la correcta.

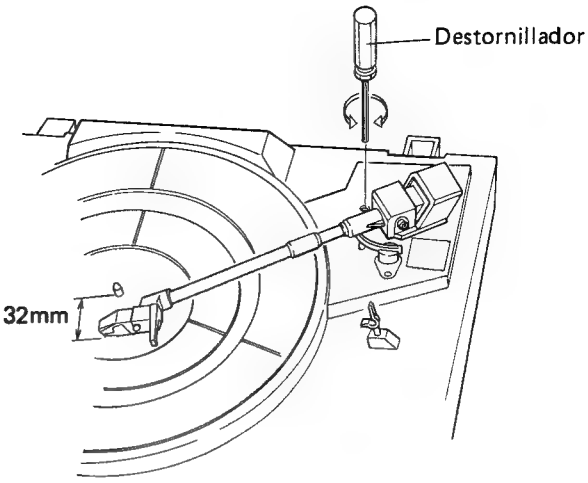


Fig. 11-3 Ajuste de retorno automático

11.4 AJUSTE DEL BRAZO DE FONOCAPTOR

1. Presionar el conmutador de elevación del brazo de fonocaptor para desplazar el brazo hacia arriba.
2. Ajustar el tornillo en el lado de la unidad de elevación del brazo por medio de un destornillador de tipo (+), de modo que la distancia entre el disco y la aguja sea de 8 ± 2 mm. El brazo se desplaza hacia arriba girando el tornillo en sentido contrario al de las agujas del reloj.

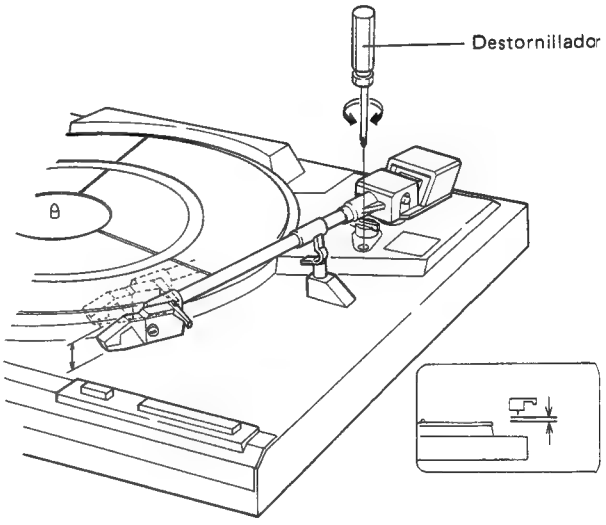


Fig. 11-4 Ajuste del brazo de fonocaptor

12. FOR KU, KC, WB AND R TYPES

12. 1 CONTRAST PARTS

NOTES:

- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

  Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	*56 × 10¹*	*561*	*RD1/4PS 5 6 1 J*
47kΩ	*47 × 10³*	*473*	*RD1/4PS 4 7 3 J*
0.5Ω	*0R5*		*RN2H 0 R 5 K*
1Ω	*010*		*RS1P 0 1 0 K*

  Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	*562 × 10¹*	*5621*	*RN1/4SR 5 6 2 1 F*

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

PL-570(BK)/KU, KC, WB, R and PL-570/WB types are the same as the PL-570(BK)/WEM type except for following sections.

Miscellaneous Parts

Mark	Symbol & Description	Part No.					
		PL-570(BK)/WEM	PL-570(BK)/WB	PL-570/WB	PL-570(BK)/R	PL-570(BK)/KU	PL-570(BK)/KC
⚠	Power supply assembly	PWR-095	PWR-095	PWR-095	PWR-095	PWR-096	PWR-096
⚠	AC power cord	PDG-037	PDG-063	PDG-063	PDG-044	PDG-023	PDG-023
⚠ ★★	Line voltage selector	.....	.....	.....	PSB-017	.....	.....
	PU cord assembly	PXB-333	PXB-333	PXB-333	PXB-333	PXB-345	PXB-333
	Panel	PNY-582	PNY-582	PNY-589	PNY-590	PNY-582	PNY-582
	Operating instructions (English)	.....	PRB-307	PRB-307	PRB-307	PRB-307	PRB-307
	Operating instructions (English, German, French, Italian)	PRE-054	.....	.....	.....	.....	.....
	Operating instructions (Spanish)	.....	.....	.....	PRC-022	.....	.....
	Packing case	PHH-339	PHH-339	PHH-369	PHH-339	PHH-348	PHH-348

12.2 ELECTRICAL PARTS LIST

Power Supply Assembly (PWR-096) (For KU and KC types)

SEMICONDUCTOR

Mark	Symbol & Description	Part No.
★	D1	DSA1A1

TRANSFORMER

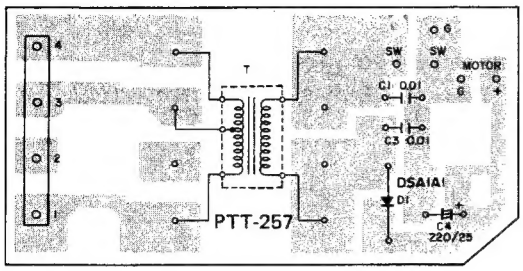
Mark	Symbol & Description	Part No.
⚠ ★	Power tarnsformer (AC120V)	PTT-257

CAPACITORS

Mark	Symbol & Description	Part No.
	C4	CEA221M25L
⚠	C1, C3	CKDYF103Z50

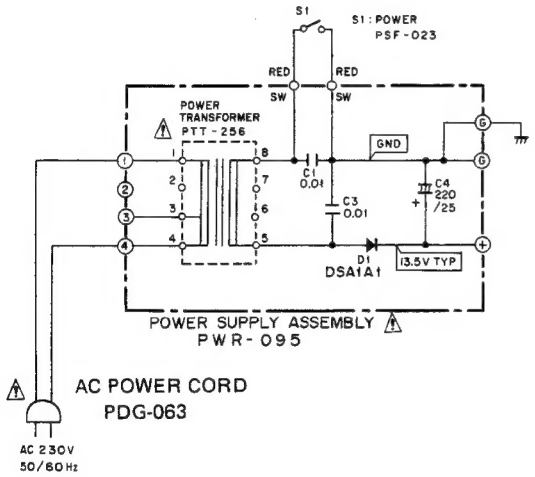
12.3 P.C. BOARD PATTERN

Power Supply Assembly (PWR-096)

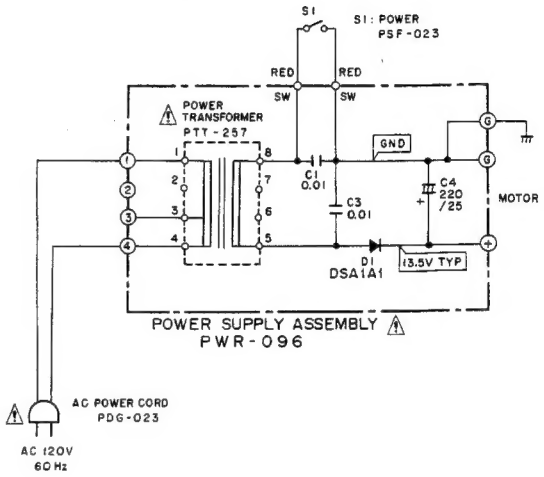


12.4 SCHEMATIC DIAGRAM

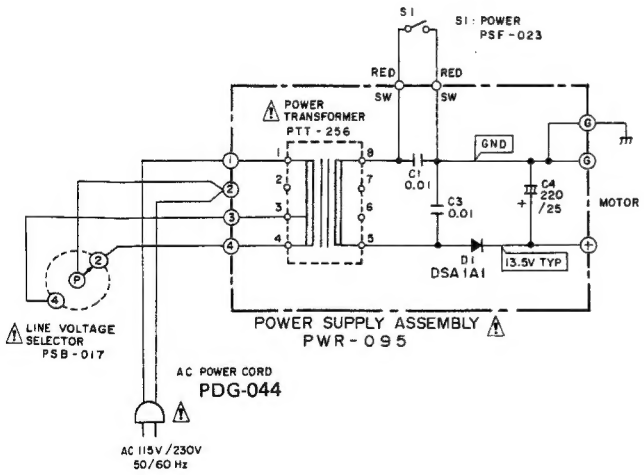
For WB type



For KU and KC types



For R type



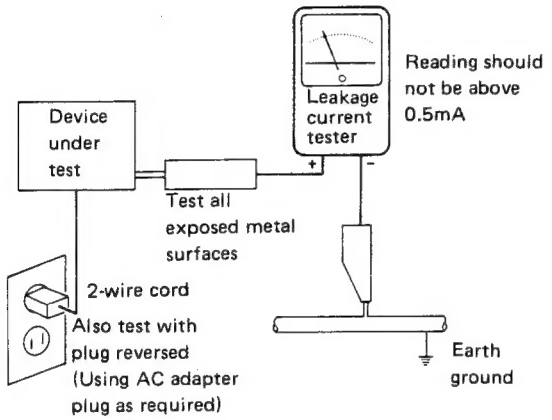
13. SAFETY INFORMATION

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.